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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,501	12/08/2003	Andrew Swallow	37,466	2349

7590 07/24/2006

BP America Inc.
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EXAMINER

LANG, AMY T

ART UNIT PAPER NUMBER

1714

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,501	SWALLOW ET AL.	
	Examiner	Art Unit	
	Amy T. Lang	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: page 3, line 11 of the specification includes the phrase "has a viscosity is between" where this is incorrect in context.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 and 5-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Gibb (US 2004/0063590 A1).

Gibb discloses a lubricant composition for refrigerant applications, including for use in rotary compressors and the method of lubricating the compressor ([0001], [0031]). The composition is comprised of a combination of alkylbenzene and polyol ester as the base oil and hydrofluorocarbon refrigerants ([0003], [0015]). The alkylbenzene comprises between 60 and 75 wt% of the base oil and the polyol ester comprises between 25 and 45 wt% ([0016]). Furthermore, Gibb discloses the kinematic

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viscosity of the alkylbenzene between 25 and 70 cST at 40 degrees Celsius ([0020]).

The kinematic viscosity of the polyol ester is disclosed between 5 and 40 at 40 degrees Celsius ([0024]). Therefore, the kinematic viscosities of the alkylbenzene and polyol ester clearly overlap and are therefore within 10% of each other.

The polyol ester is further disclosed as made from neopentyl glycol, trimethylol propane, pentaerythritol, and dimmers and trimers of the alcohols, which clearly overlaps claim 3 ([0023]). The refrigerants are further disclosed as R-32, R-134a, and R-125, and mixtures thereof ([0035]).

Therefore, Gibb '590 anticipates the cited present claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 4, 9 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Gibb (US 2004/0063590 A1) in view of Sato (US 5,366,646).

Gibb, as discussed in paragraph 3 is incorporated here by reference, discloses a refrigerator lubricating composition comprised of alkylbenzene and polyol ester. The preferred polyol esters are made from alcohols and one or more linear or branched C5-C18 acids ([0023]). However, Gibb is silent as to the specific acids utilized in the composition.

Sato also discloses a refrigerator lubricating composition comprised of polyol ester and alkylbenzene (column 1, lines 5-7, column 3, lines 49-53, column 8, lines 29-34). The polyol esters also include trimethylolpropane, di-trimethylpropane, and pentaerythritol as the alcohol portion of the compound. The acids utilized are disclosed as octanoic acid, nonanoic acid, 2-methylbutyric acid, heptanoic acid, and isononanoic acid (column 3, line 58 through column 4, line 68).

Recognizing that the linear or branched C5 – C18 acids of Gibb encompass the specific acids of Sato and that both references disclose compositions useful as refrigerator lubricants, it would have been obvious to use the specific acids of Sato as the embodiment of the desired acid in the generic disclosure of Gibb.

Furthermore, Gibb discloses the lubricating composition for use in rotary compressors. Gibb does not disclose other types of compressors. Sato discloses a very similar composition, which like Gibb, is also utilized as a refrigerator lubricant in rotary type and reciprocation type compressors and air conditioners (column 13, lines 10-25). It therefore would have been obvious to also utilize the composition disclosed

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by Gibb in not only rotary compressors but also reciprocation compressors and air conditioners. Therefore, one of ordinary skill would thereby obtain the invention as set forth in the presently cited claims.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gibb (US 2004/0063590 A1) in view of Short (US 5,486,302).

Gibb, as discussed in paragraph 3 is incorporated here by reference, discloses a refrigerator lubricating composition comprised of alkylbenzene and polyol ester. The composition is disclosed for use in rotary compressors. Gibb does not disclose other types of compressors though.

Short, like Gibb also discloses a refrigerating lubricant composition comprised of polyol ester and alkylbenzene (column 1, lines 11-14, column 2, lines 10-14, column 5, lines 16-23). The composition is utilized in rotary screw compressors, which encompass screw compressors (column 6, lines 47-50). Since both Gibb and Short disclose a very similar refrigerating composition utilized as a refrigerator lubricant, it would have been obvious for Gibb to also utilize the composition in screw compressors. Therefore, one of ordinary skill would thereby obtain the invention as set forth in the presently cited claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Maeda (JP 06-041559) discloses a refrigerant lubricating

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composition comprised of a neopentyl glycol and alkylbenzene in a wt ratio of 20:80 to 99:1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy T. Lang whose telephone number is 571-272-9057. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

07/12/2006
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